STATE OF MARYLAND

DHMH

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April 29, 2011

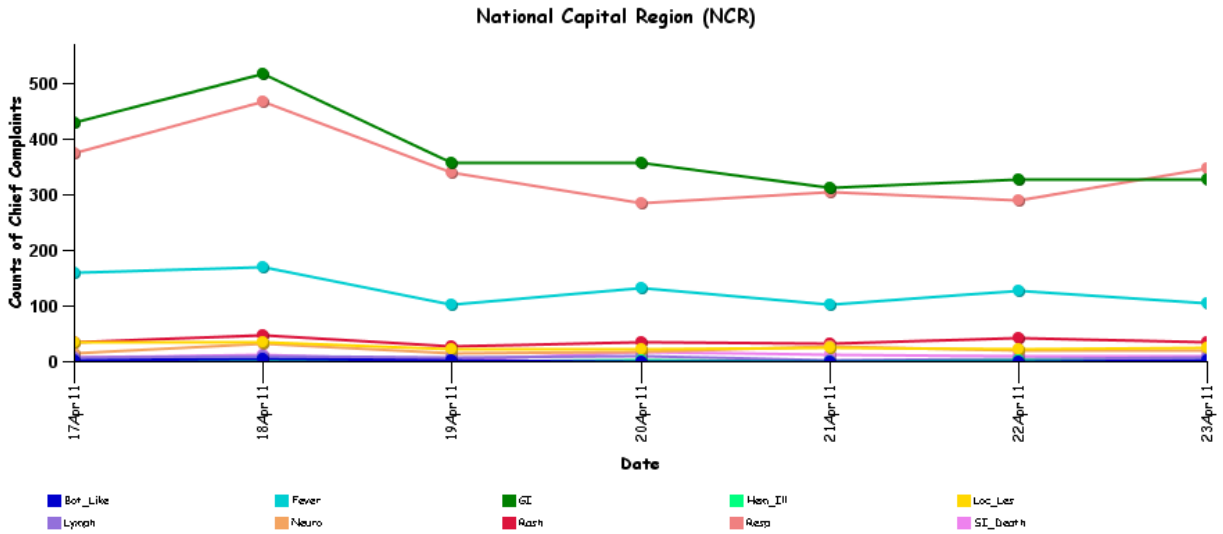
Public Health & Emergency Preparedness Bulletin: # 2011:16
Reporting for the week ending 04/23/11 (MMWR Week #16)

CURRENT HOMELAND SECURITY THREAT LEVELS

National: **Yellow (ELEVATED) *The threat level in the airline sector is Orange (HIGH)**
Maryland: **Yellow (ELEVATED)**

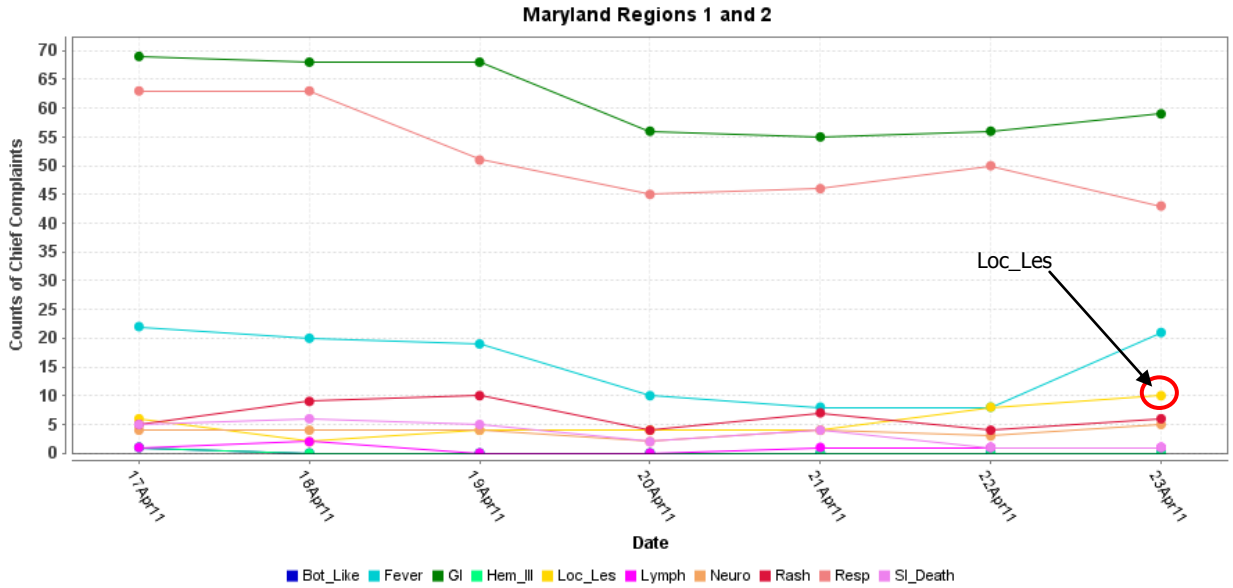
SYNDROMIC SURVEILLANCE REPORTS
ESSENCE (Electronic Surveillance System for the Early Notification of Community-based Epidemics):
Graphical representation is provided for all syndromes, excluding the "Other" category, all age groups, and red alerts are circled. Red alerts are generated when observed count for a syndrome exceeds the 99% confidence interval. Note: ESSENCE – ANCR uses syndrome categories consistent with CDC definitions.

Overall, no suspicious patterns of illness were identified. Track backs to the health care facilities yielded no suspicious patterns of illness.

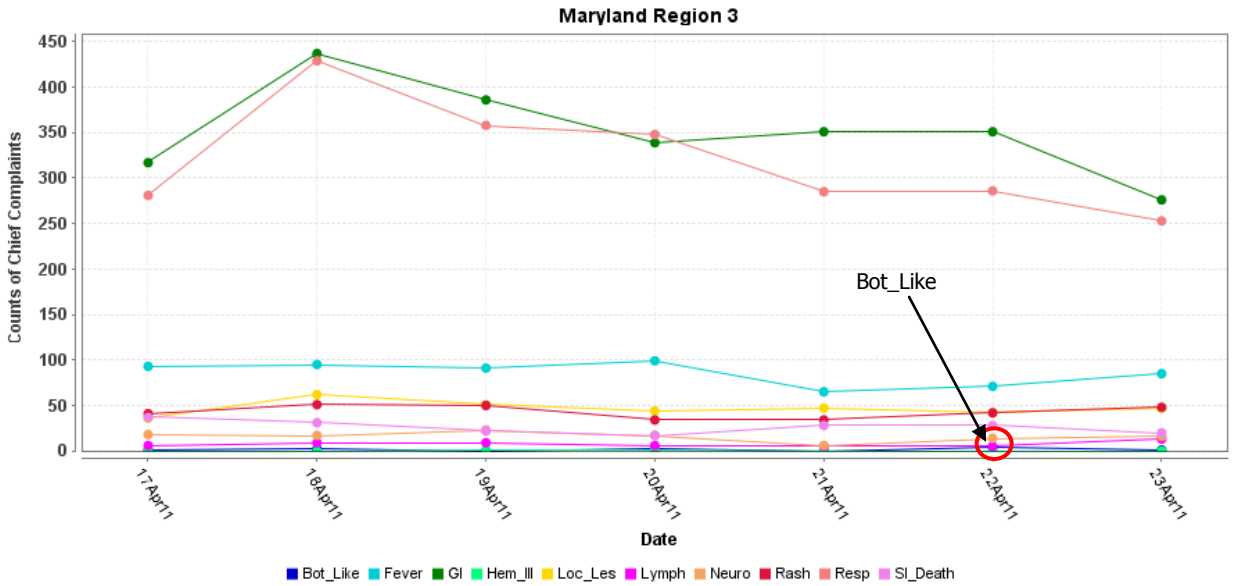


*Includes EDs in all jurisdictions in the NCR (MD, VA, and DC) reporting to ESSENCE

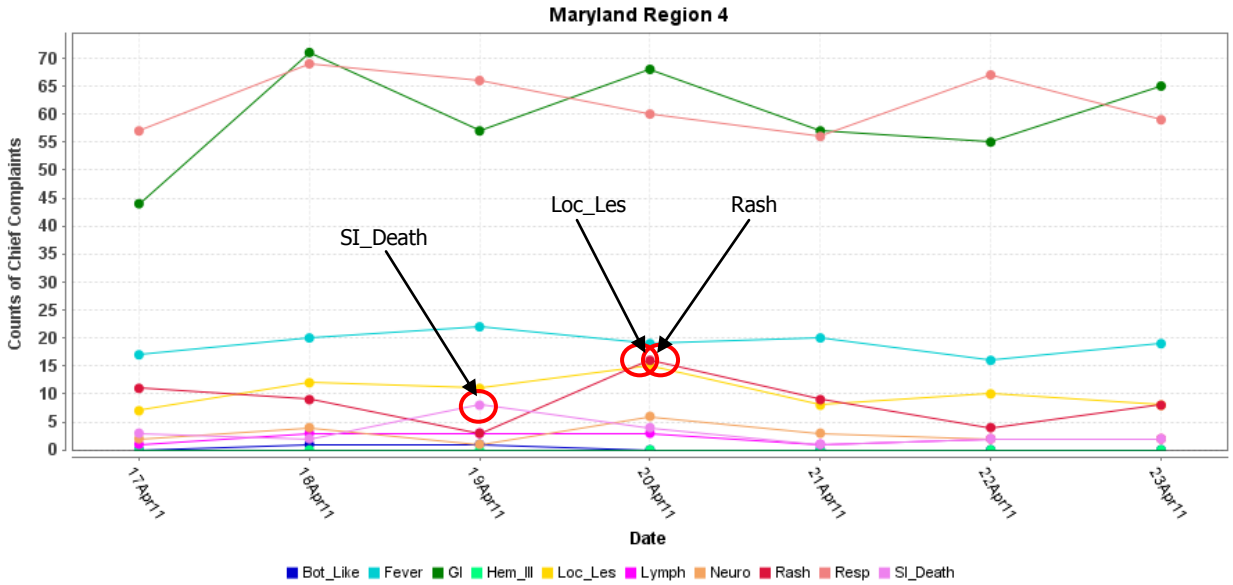
MARYLAND ESSENCE:



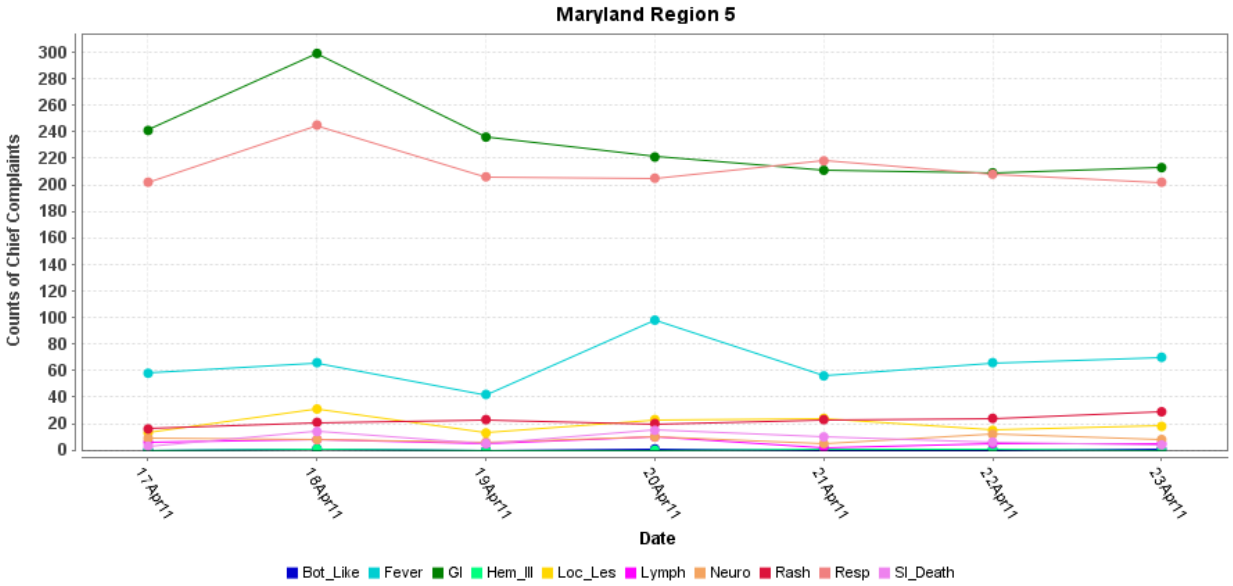
* Region 1 and 2 includes EDs in Allegany, Frederick, Garrett, and Washington counties reporting to ESSENCE



* Region 3 includes EDs in Anne Arundel, Baltimore City, Baltimore, Carroll, Harford, and Howard counties reporting to ESSENCE



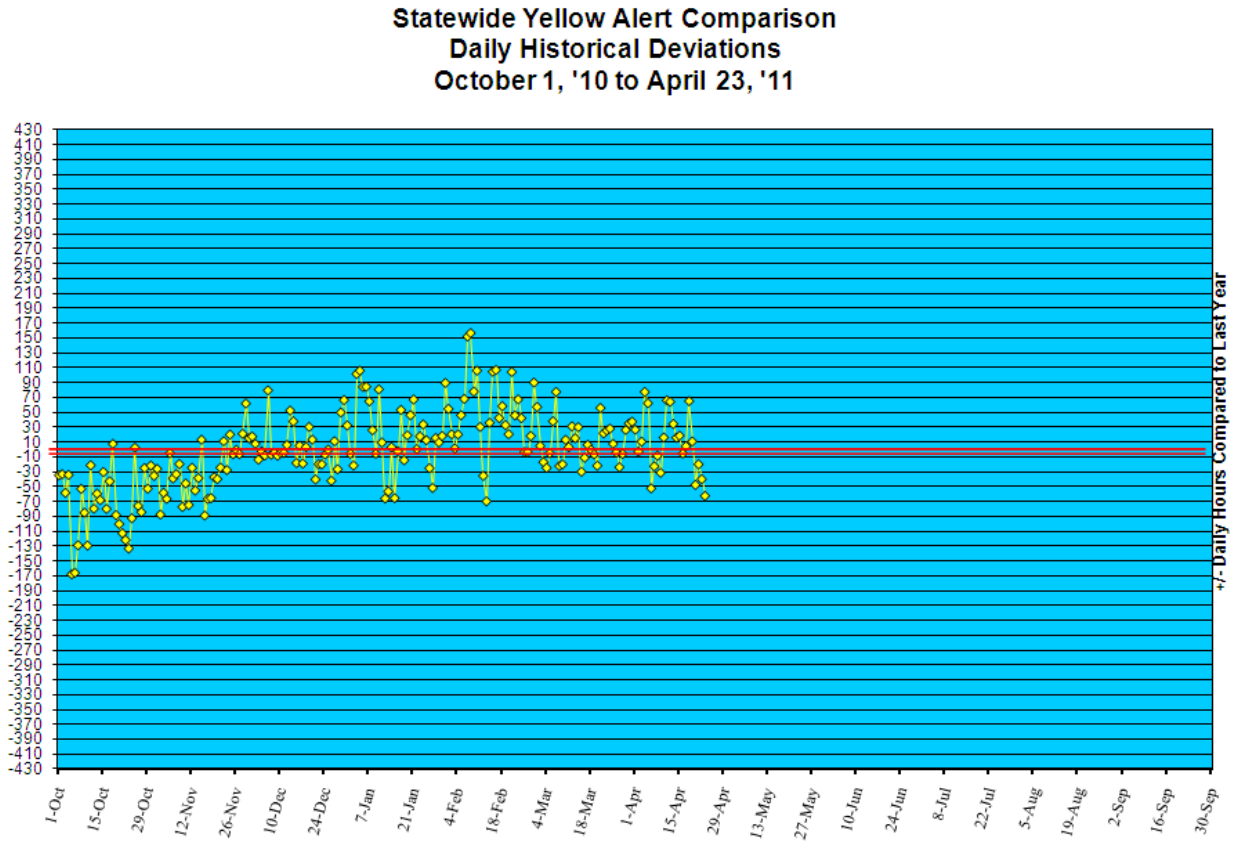
* Region 4 includes EDs in Cecil, Dorchester, Kent, Somerset, Talbot, Wicomico, and Worcester counties reporting to ESSENCE



* Region 5 includes EDs in Calvert, Charles, Montgomery, Prince George's, and St. Mary's counties reporting to ESSENCE

REVIEW OF EMERGENCY DEPARTMENT UTILIZATION

YELLOW ALERT TIMES (ED DIVERSION): The reporting period begins 10/01/10.



REVIEW OF MORTALITY REPORTS

Office of the Chief Medical Examiner: OCME reports no suspicious deaths related to an emerging public health threat for the week.

MARYLAND TOXIDROMIC SURVEILLANCE

Poison Control Surveillance Monthly Update: Investigations of the outliers and alerts observed by the Maryland Poison Center and National Capital Poison Center in March 2011 did not identify any cases of possible public health threats.

REVIEW OF MARYLAND DISEASE SURVEILLANCE FINDINGS

COMMUNICABLE DISEASE SURVEILLANCE CASE REPORTS (confirmed, probable and suspect):

Meningitis:	**Aseptic**	**Meningococcal**
New cases (April 17 – April 23, 2011):	10	0
Prior week (April 10 – April 16, 2011):	7	0
Week#16, 2010 (April 18 – April 24, 2010):	10	0

1 outbreak was reported to DHMH during MMWR week 16 (April 17 – April 23, 2011)

1 Foodborne outbreak
1 outbreak of FOODBORNE ILLNESS associated with an Office

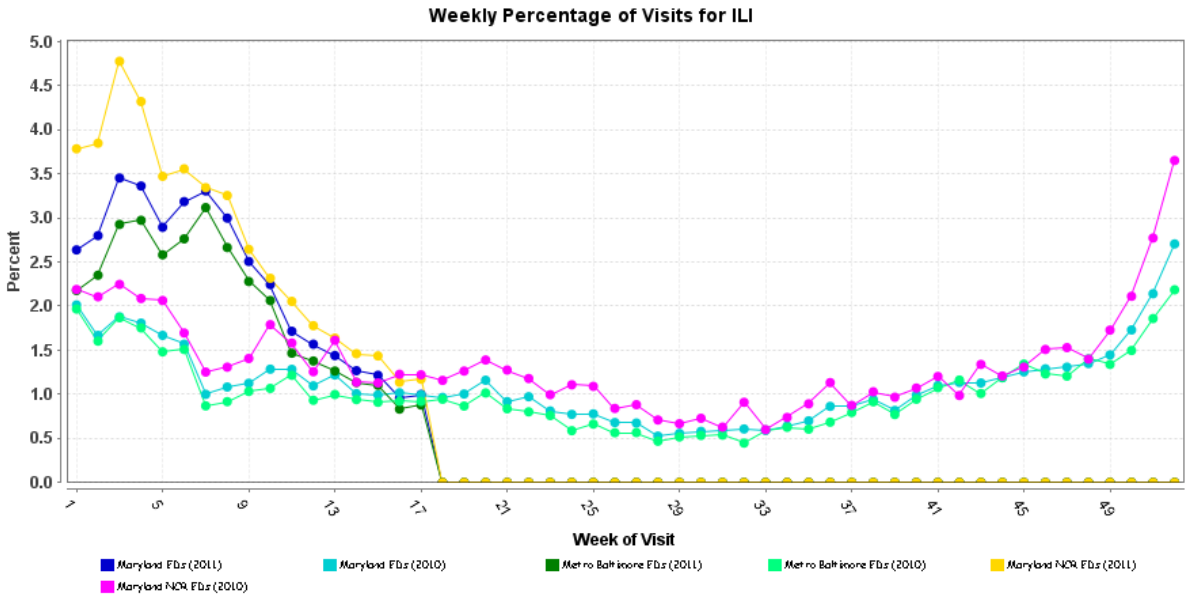
MARYLAND SEASONAL FLU STATUS

Seasonal Influenza reporting occurs October through May. Seasonal influenza activity was SPORADIC for Week 16.

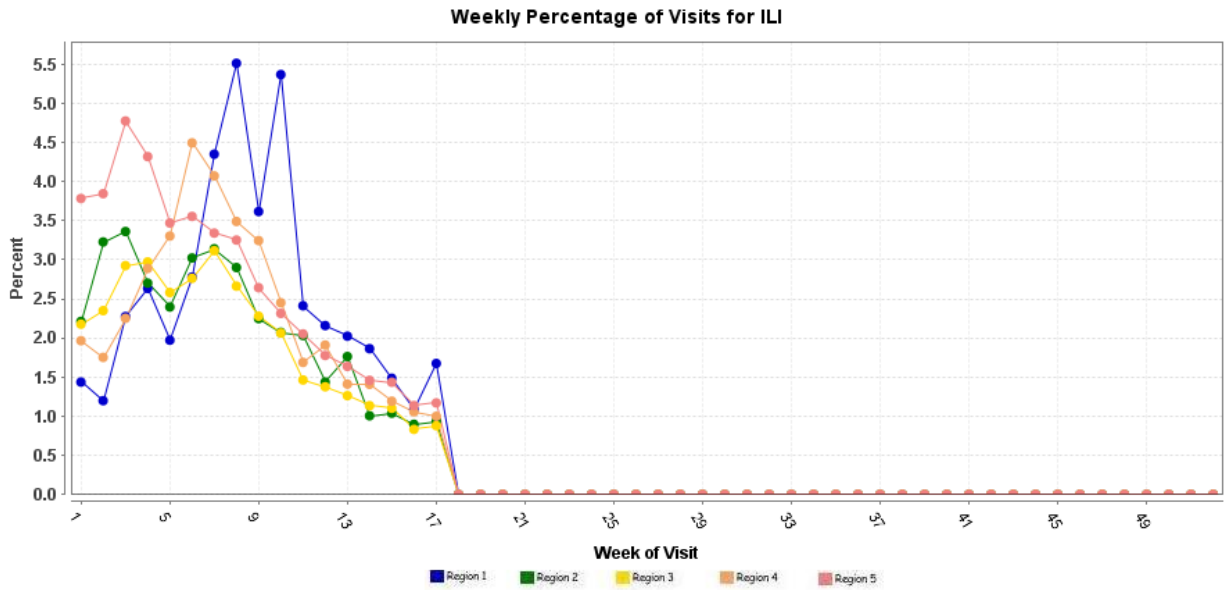
SYNDROMIC SURVEILLANCE FOR INFLUENZA-LIKE ILLNESS

Graphs show the percentage of total weekly Emergency Department patient chief complaints that have one or more ICD9 codes representing provider diagnoses of influenza-like illness. These graphs do not represent confirmed influenza.

Graphs show proportion of total weekly cases seen in a particular syndrome/subsyndrome over the total number of cases seen. Weeks run Sunday through Saturday and the last week shown may be artificially high or low depending on how much data is available for the week.



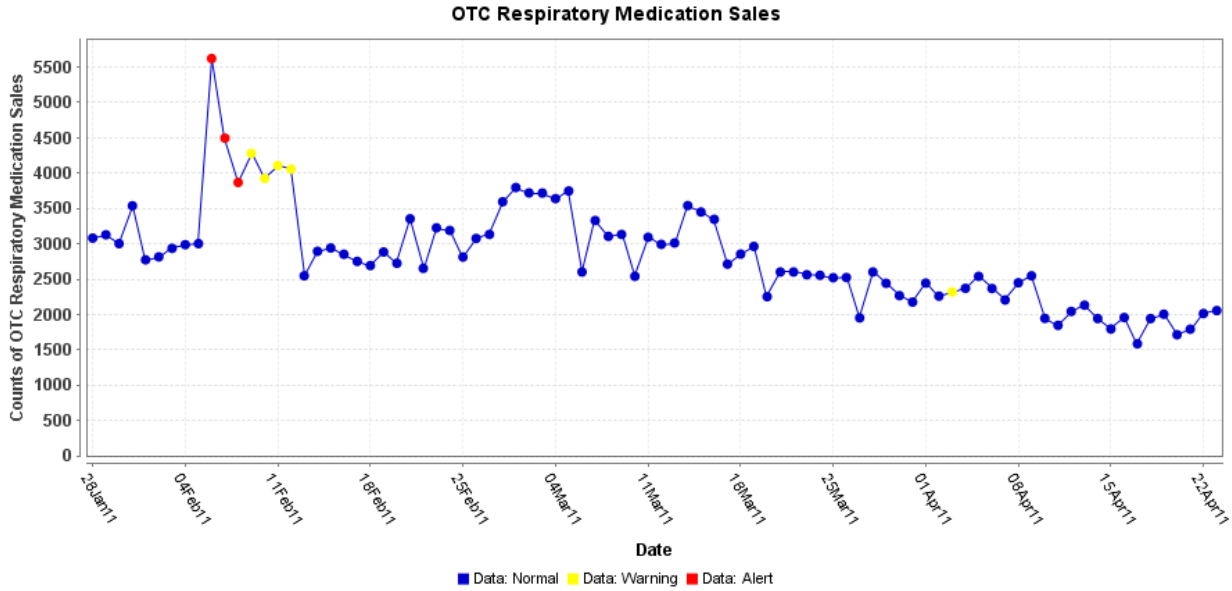
* Includes 2010 and 2011 Maryland ED visits for ILI in Metro Baltimore (Region 3), Maryland NCR (Region 5), and Maryland Total



*Includes 2011 Maryland ED visits for ILI in Region 1, 2, 3, 4, and 5

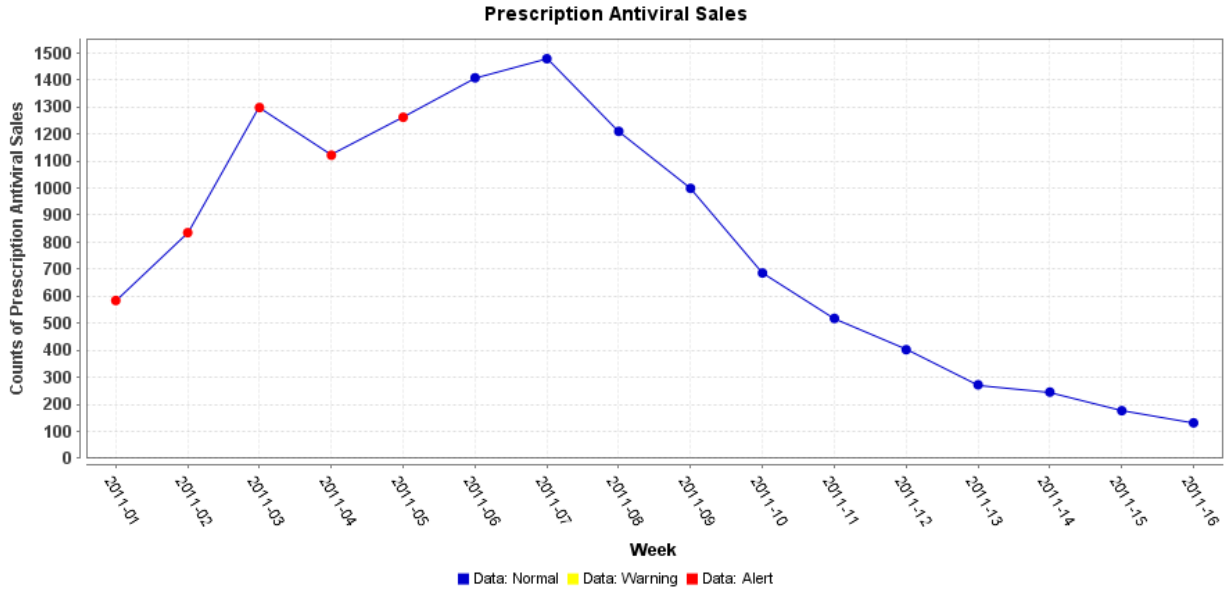
OVER-THE-COUNTER (OTC) SALES FOR RESPIRATORY MEDICATIONS:

Graph shows the daily number of over-the-counter respiratory medication sales in Maryland at a large pharmacy chain.



PRESCRIPTION ANTIVIRAL SALES:

Graph shows the weekly number of prescription antiviral sales in Maryland.



PANDEMIC INFLUENZA UPDATE / AVIAN INFLUENZA-RELATED REPORTS

WHO update: The current WHO phase of pandemic alert for avian influenza is 3. Currently, the avian influenza H5N1 virus continues to circulate in poultry in some countries, especially in Asia and northeast Africa. This virus continues to cause sporadic human infections with some instances of limited human-to-human transmission among very close contacts. There has been no sustained human-to-human or community-level transmission identified thus far.

In **Phase 3**, an animal or human-animal influenza reassortant virus has caused sporadic cases or small clusters of disease in people, but has not resulted in human-to-human transmission sufficient to sustain community-level outbreaks. Limited human-to-human transmission may occur under some circumstances, for example, when there is close contact between an infected person and an unprotected caregiver. However, limited transmission under such restricted circumstances does not indicate that the virus has gained the level of transmissibility among humans necessary to cause a pandemic.

As of April 21, 2011, the WHO-confirmed global total of human cases of H5N1 avian influenza virus infection stands at 552, of which 322 have been fatal. Thus, the case fatality rate for human H5N1 is approximately 58%.

AVIAN INFLUENZA, HUMAN (CAMBODIA): 21 April 2011, The Ministry of Health (MoH) of the Kingdom of Cambodia has announced a confirmed case of human infection with avian influenza A(H5N1) virus. The case was a 5 year old girl from Pea Raing district, Prey Veng Province. She developed symptoms on 11 Apr 2011, was initially treated by local private practitioners with no effect, and was later admitted to Kantha Bopha Children Hospital on 13 Apr 2011. Despite all intensive care, she died on 16 Apr 2011, 4 days after admission. There have been reports of poultry die off in her village. The girl is the 15th person in Cambodia to become infected with the H5N1 virus and the 13nth to die from complications of the disease. All 5 cases of H5N1 infections in humans in Cambodia this year have been fatal. Specimens from 53 contacts of the cases were collected and are being tested by the National Institute for Public Health laboratory.

AVIAN INFLUENZA, HUMAN (EGYPT): 21 April 2011, On 16 Apr 2011, the Ministry of Health of Egypt notified WHO of 2 new cases of human infection with avian influenza A (H5N1) virus. The 1st case was a 29 year old man from Fayoum Governorate Wadi Elrian area, who developed symptoms on 1 Apr 2011, was hospitalized on 4 Apr 2011, and died on 7 Apr 2011. The 2nd case was a one-and-a-half year old baby boy from Fayoum Governorate, Sennores District, who developed symptoms on 9 Apr 2011 and was hospitalized on 11 Apr 2011. He is being treated and is in a stable condition. Both of the cases received oseltamivir treatment at the time of hospitalization. Investigations into the source of infection indicate that both of the cases had exposure to sick and/or dead poultry suspected to have avian influenza. There is no epidemiological link identified between these 2 cases. The cases were confirmed by the Egyptian Central Public Health Laboratories, a National Influenza Center of the WHO Global Influenza Surveillance Network. Of the 143 cases confirmed to date in Egypt, 47 have been fatal.

NATIONAL DISEASE REPORTS

HANTAVIRUS (COLORADO): 22 April 2011, A woman in her 20s became the 1st in 2011 to fall ill with [a] hantavirus [infection] in Weld County, the Colorado Department of Public Health and Environment said on Friday [15 Apr 2011]. The woman, from the south central part of the county, is the 2nd case in the state this year. Another woman in her 20s in south west Colorado died. Hantavirus [infection] is a respiratory disease [virus] carried by deer mice [Peromyscus maniculatus]. The mice are commoner in rural areas but are indigenous to all areas of the continental United States. Domestic animals are not at risk for hantavirus [infections]. Sara Evans, environmental health manager for the Weld County Department of Public Health and Environment, said everyone needs to take precautions if they see any mouse droppings. "If we were to see the mouse, it's more brown than the typical house mouse, which is gray," Evans said. "People need to understand they are not going to see the mouse most of the time. So you have to assume it's a deer mouse if you come across droppings, just to be safe." Evans said the Four Corners region of the United States [south western corner of Colorado, north western corner of New Mexico, north eastern corner of Arizona, and south eastern corner of Utah] is most at risk. Weld doesn't always have cases of hantavirus [infections], she said, but it has seen 2 a year in the past couple of years. In 2010, 5 cases and 2 deaths were reported in Colorado. Hantavirus causes death in nearly half of all cases. Initially, there are no respiratory symptoms, and it begins with a high fever, severe body aches, a headache and vomiting. The onset of symptoms can begin 1-6 weeks after exposure, but on average show up between 2 and 3 weeks, Evans said. Evans said preventing mice from getting into the home by plugging up holes with a heavy-gauge steel screen is the best way to avoid exposure. However, if mice get into the home, the old-fashioned traps are the best way to catch them. She also said to dispose of the mouse and trap using a plastic grocery bag and not reuse the trap. "We never recommend poison because they eat it and go off and die somewhere in the house, and you're left to deal with that," she said. "Peanut butter with a little bit of oatmeal that they have to pick off the peanut butter placed on one of those cheap wooden snap traps is the best way." (Hantavirus is listed in Category C on the CDC List of Critical Biological Agents) *Non-suspect case

INTERNATIONAL DISEASE REPORTS

ST. LOUIS ENCEPHALITIS (ARGENTINA): 21 April 2011, San Juan health authorities have confirmed 7 cases of St. Louis encephalitis [SLE] [virus infection], an acute viral disease that affects the central nervous system and that is transmitted by mosquitoes that bite doves, pigeons, sparrows and chickens. The public health service recommends that the populace prevent the proliferation of these insects. The diagnoses began to be reported 20 days previously and yesterday [19 Apr 2011] the government managed, through the laboratory of the National Institute of Epidemiology, to confirm the 7th case of the disease, which causes inflammation of the brain after patients present with high fever. The provincial director of epidemiology, Frida Capato, asks the population to be calm and take the same measures that govern prevention for avoidance of proliferation of the mosquito that transmits dengue. These include the use of bed nets, and avoiding accumulation of water in catchments, and the use of repellants. The avoidance of mosquito bites in general is the only practical measure to avoid infection by SLE virus. The breeding sites and biting behavior of the mosquito that transmits dengue viruses, Aedes aegypti are very different from the Culex species that transmit SLE virus. This most recent patient affected [by the disease] is a man from San Juan who is currently "under observation and [whose] health is in good condition," according to the provincial Ministry of Health. Spokespeople from that agency stated that St. Louis [encephalitis] virus is transmitted by the Culex pipiens mosquito to people, and is not spread [directly] from person to person. After infection [is initiated], a person may or may not develop the disease, depending on their defenses and antibodies that they have. Only a small proportion of individuals go on to develop encephalitis when infected with SLE virus, with the elderly being disproportionally affected. Pre-existing antibodies antibodies to other flaviviruses (the family to which SLE virus belongs) found in Argentina are unlikely to provide significant cross-protection against SLE virus infections. In March [2011], the death of a person was investigated whose diagnosis was similar to the infection caused by St. Louis [encephalitis] virus, but the death of this patient having been due to this type of encephalitis was not officially confirmed. At the beginning of 2010, the national Ministry of Health reported 4 cases of St. Louis encephalitis [virus infection] within the Buenos Aires city and province. The disease that this virus causes includes, as main symptoms, headache, high fever, dizziness and nausea. Most of the cases recuperate spontaneously, although some develop central nervous system infection. Given the situation, various San Juan [governmental] departments initiated fumigation to combat mosquitoes in the areas where the infected people were found. The sources in the health area stated that the insect "bites virus-infected birds and later transmits it to the people," which is why the use of repellants is insisted upon [along with] window screens in the houses. The virus is present throughout the American continent and the last reported outbreak in the country was in 2005 [but there were a few cases in 2010, as mentioned above]. (Viral Encephalitis is listed in Category B on the CDC List of Critical Biological Agents) *Non-suspect case

OTHER RESOURCES AND ARTICLES OF INTEREST

More information concerning Public Health and Emergency Preparedness can be found at the Office of Preparedness and Response website: http://preparedness.dhmh.maryland.gov/

Maryland's Resident Influenza Tracking System: http://dhmh.maryland.gov/flusurvey

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NOTE: This weekly review is a compilation of data from various surveillance systems, interpreted with a focus on a potential BT event. It is not meant to be inclusive of all epidemiology data available, nor is it meant to imply that every activity reported is a definitive BT event. International reports of outbreaks due to organisms on the CDC Critical Biological Agent list will also be reported. While not "secure", please handle this information in a professional manner. Please feel free to distribute within your organization, as you feel appropriate, to other professional staff involved in emergency preparedness and infection control.

For questions about the content of this review or if you have received this and do not wish to receive these weekly notices, please e-mail me. If you have information that is pertinent to this notification process, please send it to me to be included in the routine report.

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